Description

Digital lab notebooks have been available to record research for many years but their shortcomings have prevented them from being widely accepted. But that may be changing now. New developments are making digital lab books competitive or even superior to paper and pen in most ways.

Legibility

Years ago, after struggling to decipher my own chicken scratch handwriting, I gave up writing script in my lab notebooks and started printing everything. This made a big difference in my notebook's legibility, but typing directly into a digital lab book is even better. Data can be entered in paragraph form or in Excel style columns.

Searchability

Ever try retrieving an experiment from a notebook that you haven't looked at for three years? Then you would appreciate the ability to search for terms such as n-butyllithium in a digital lab book rather than having to skim through hundreds of pages by hand. Not only it saves efforts but your valuable time in this digital world.

Transferability

Before the advent of eNotebooks, every experiment had to be written twice: once in the notebook and once again in the article describing it. With a digital notebook you can cut and paste the original experimental portion directly into the paper in progress, saving 90% of the effort.

Portability

Computers used to be clunky affairs, hard to transport from lab to lab. Laptops were a big improvement, and smart phones are about as portable as can be. Although I don't like typing on a tiny phone keypad, if you are of the texting generation, a cloud based digital labbook on a Smartphone may be for you.

Security

This was traditionally a drawback of digital lab books, not the risk that someone might steal your laptop, but the possibility that an unethical researcher might alter entries and fraudulently claim priority in a patent application. At one time there was no way to detect such doctoring and courts would not accept digital notebooks as evidence. Today with such tools as digital signatures, these shortcomings are largely overcome. However, this is an aspect that researchers should evaluate carefully before using a digital notebook.

I admit that I have never used a digital notebook in my research and am dubious that they are right for me. For example, in my notebooks I draw a reaction scheme at the start of all my synthesis experiments, and I'm not sure how easy it will be for me to do this digitally. But I intend to find out, using one of the free cloud based digital notebooks available on the internet. Stay tuned for my findings.

Some Digital Lab Books to Consider:

Labfolder: A free, cloud based lab book

TheLabNotebook: Another free downloadable lab book.

Dozens of other lab books are listed at
http://campusguides.lib.utah.edu/content.php?pid=148824&sid=3607264

Many of these are designed for specific uses, chemistry, biology, formulations.

Category

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